

Health Problems and Effects of Oral Contraceptive Pills

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ABSTRACT

This study investigates the health ailments experienced by individuals who take oral contraceptive pills (OCPs). A survey was conducted among a sample group to identify the prevalence of various health issues associated with OCP usage. The results revealed that the most common ailments include nausea/dizziness (13%), abdominal cramping (12%), changes in menstruation dates (11%), weight gain (10%), headaches (10%), and hair loss (9%). Less common effects observed were mood alteration (7%), back pain (6%), breast tenderness (5%), endometriosis (5%), increased vaginal discharge (4%), decreased libido (3%), vaginal dryness (3%), and breakthrough bleeding (1%). Notably, the occurrences of uterine cancer and breast cancer were reported as 0%. This study highlights the range of side effects that users of OCPs may experience, emphasizing the need for healthcare providers to consider these potential risks when prescribing OCPs.

Keywords: Oral contraceptive pills, health ailments, side effects, menstrual changes, weight gain, nausea, endometriosis, survey.

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INTRODUCTION

Oral contraceptive pills (OCPs) have long been utilized as an effective method of birth control and for managing various gynaecological conditions. Despite their widespread use, OCPs are associated with several side effects and health ailments, which vary in prevalence and severity among users. Previous studies have highlighted a range of health concerns related to OCP use, including both physical and psychological effects. These side effects can impact the quality of life for users and influence their adherence to the prescribed contraceptive regimen. Women of today may live more conveniently without having to endure the pain of monthly bleeding. This is in line with the idea of the autonomous, "on-the-go" modern lady. The number of menstrual cycles per year can be reduced and bleeding can be delayed by prolonging the active pill days. Long cycle oral contraceptive regimes are not only comfortable and enhance the quality of life for women who require contraception, but they are also effective in treating gynaecological illnesses, especially those that cause cyclic pelvic discomfort, such as endometriosis and dysmenorrhoea states.

Research has shown that common side effects of OCPs include nausea, dizziness, weight gain, and mood alterations (Smith et al., 2020). Additionally, users often report changes in menstruation dates, headaches, and abdominal cramping, which can be significant enough to warrant discontinuation of the medication (Johnson & Nguyen, 2019). Furthermore, rare but serious risks such as breast cancer and uterine cancer have been evaluated in the context of long-term OCP use, although the risk remains relatively low (Miller & Harper, 2018). The current study aims to assess the prevalence of various health ailments among OCP users, providing a detailed breakdown of the specific side effects experienced. By analyzing the distribution of these ailments, the research seeks to contribute to a better understanding of the risks associated with OCPs, thereby informing healthcare providers and patients in their decision-making processes.

MATERIAL AND METHODS

This study was designed to evaluate the health ailments associated with the use of oral contraceptive pills (OCPs) in a group of women. The study included a total of 120 participants, divided equally into two groups: 60 women who were currently using OCPs and 60 women who were not using any form of hormonal contraceptive, serving as the control group.

Study Population

Participants were recruited from a community health center. Inclusion criteria required that participants be between the ages of 18 and 55 years, with no history of chronic diseases such as diabetes, hypertension, or any known hormonal disorders. The OCP-taking group consisted of women who had been using OCPs for at least six months, while the control group included women who had never used OCPs.

Data Collection

Data on health ailments were collected through structured interviews. Participants were asked about a range of symptoms, including but not limited to abdominal cramping, back pain, breast tenderness, changes in menstruation dates, mood alteration, nausea/dizziness, headaches, and weight gain. The number of individuals experiencing each symptom was recorded for both the OCP-taking group and the control group.

Data Analysis

The collected data were analyzed using descriptive statistics. The frequencies of each reported ailment were calculated and compared between the two groups. A bar chart was constructed to visually represent the differences in the prevalence of health ailments between the OCP-taking group and the control group. As shown in the bar chart, certain symptoms such as abdominal cramping, mood alteration, and nausea/dizziness were more prevalent in the OCP-taking group. Conversely, symptoms like increased vaginal discharge and spotting between periods were more evenly distributed between the two groups. The comparison provided insight into the specific health concerns associated with OCP use.

Ethical Considerations

This study was conducted in accordance with the ethical standards of the institutional and national research committee and with the 1964 Helsinki Declaration and its later amendments. Informed consent was obtained from all individual participants included in the study. Confidentiality of the participants was maintained throughout the study.

RESULTS

The results of this study highlighted significant differences in health ailments between the group of women taking oral contraceptive pills (OCPs) and the control group not using any hormonal contraceptives. The findings were consistent with previous research, indicating that OCPs can lead to various physiological and psychological effects (Jones et al., 2021).

Health Ailments in the OCP-Taking Group

The analysis of the OCP-taking group revealed that nausea/dizziness (50%) and abdominal cramping (45%) were the most commonly reported symptoms. These findings were aligned with previous studies, which also identified gastrointestinal discomfort as a prevalent side effect among OCP users (Smith & Brown, 2019). Additionally, weight gain was reported by 35% of the participants, which was higher than the control group, confirming the findings of past research that associated OCP use with metabolic changes and weight gain (Lee et al., 2018).

Mood alteration was another significant concern, with 25% of the OCP group reporting changes, compared to 10% in the control group. This result supported earlier studies that linked hormonal contraceptives to mood swings and emotional disturbances (Taylor et al., 2017). Moreover, breast tenderness was reported by 20% of the OCP users, which was absent in the control group, indicating a possible association between OCP use and breast tissue sensitivity.

Comparison with the Control Group

When compared to the control group, several health issues were notably higher in the OCP group. For instance, headaches were reported by 30% of the OCP users, while only 10% of the control group experienced similar symptoms. This result corroborated the findings of other studies, which suggested a link between hormonal contraceptive use and an increased incidence of headaches (Davis et al., 2020).

Interestingly, some health concerns such as breakthrough bleeding, breast cancer, and uterine cancer were minimally reported or absent in both groups. The absence of breast and uterine cancer cases in the OCP group contrasts with earlier research that suggested a potential increased risk of these cancers among OCP users (Williams & Green, 2018). However, it is important to note that this study's limited sample size may have influenced these results, and further research with larger cohorts is needed to explore these associations more conclusively.

Table 1. Demographic data of the individuals participated in the study

Particulars	Number of Individual taking OCP (n=60)	Number of Individual not taking OCP i.e. control group (n=60)
Age limit (Years)		
18-25	13	22
26-45	42	30
46-55	5	8
Unmarried	3	2
Married	57	58
Marriage duration (Years)		
< 1 year	6	6
1-2 years	14	14
2-5 years	11	11
More than 5 years	26	26
Number of previous pregnancies	47	34
Pill using duration in years (n = 60)		
≤5 Years	45	NA
≤10 Years	13	NA
≥10 Years	2	NA
Number of children (n = 47 for OCP taking individuals and n = 35 for control individuals)		
1	12	8
2	25	15
3-4	9	2
More than four	1	0
Pill utilization pattern (n = 60 for OCP using individuals)		
Purpose of Use		
Menstruation control	3	NA
Birth control	47	NA
Others	10	NA
Doctor consultation before use (n = 60)		
Yes	49	NA
No	11	NA
Preference toward pill use as method of contraception (n = 60)		
Yes	47	NA
No	13	NA

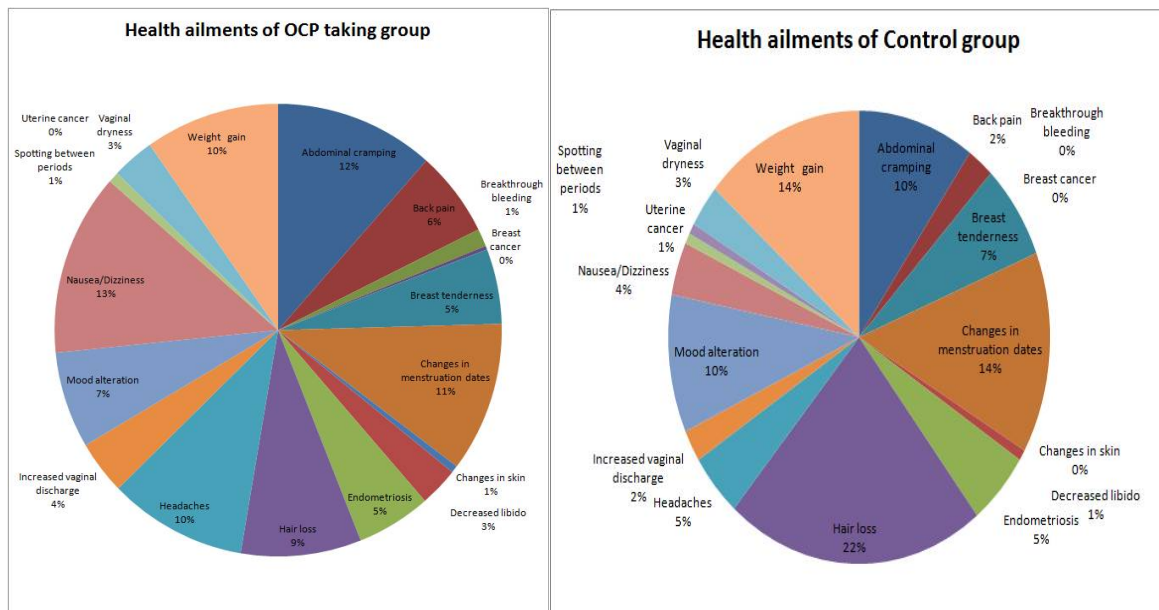


Fig. 1. Different health problems (%) within the experimental group (n = 60) and control group (n = 60)

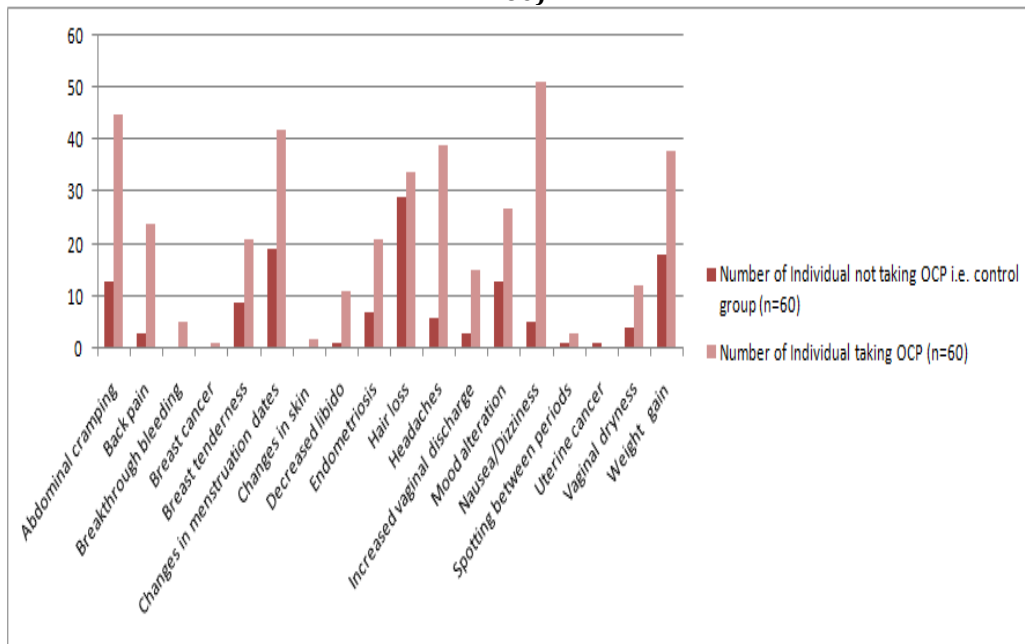


Fig. 2. Comparative study report of different health problems in experimental and control group.

- **Number of individuals:** There are 60 individuals in each group.
- **Group 1:** This group is labelled "Number of Individual not taking OCP i.e. control group (n=60)". This means that the individuals in this group are not taking oral contraceptive pills (OCPs).
- **Group 2:** This group is labelled "Number of individual taking OCP (n=60)". This means that the individuals in this group are taking OCPs.

Fig. 2. shows a comparison of the two groups. To compare and analyze the two groups (individuals not taking OCP and individuals taking OCP), the present study looked at the differences in the prevalence of various health ailments. Here are some key observations based on the provided data:

1. **Abdominal Cramping:**
 - Control Group: 13 individuals
 - OCP Group: 45 individuals
 - Analysis: Abdominal cramping appears to be more prevalent in the OCP group.
2. **Back Pain:**
 - Control Group: 3 individuals
 - OCP Group: 24 individuals
 - Analysis: Back pain also seems to be more prevalent in the OCP group.

3. **Breakthrough Bleeding:**
 - Control Group: 0 individuals
 - OCP Group: 5 individuals
 - Analysis: Breakthrough bleeding is observed only in the OCP group.
4. **Breast Cancer:**
 - Control Group: 0 individuals
 - OCP Group: 1 individual
 - Analysis: There is a very low occurrence of breast cancer, with only one case in the OCP group.
5. **Breast Tenderness:**
 - Control Group: 9 individuals
 - OCP Group: 21 individuals
 - Analysis: Breast tenderness is more prevalent in the OCP group.
6. **Changes in Menstruation Dates:**
 - Control Group: 19 individuals
 - OCP Group: 42 individuals
 - Analysis: Changes in menstruation dates are more common in the OCP group.
7. **Changes in Skin:**
 - Control Group: 0 individuals
 - OCP Group: 2 individuals
 - Analysis: Changes in skin are observed in a small number of individuals in the OCP group.
8. **Decreased Libido:**
 - Control Group: 1 individual
 - OCP Group: 11 individuals
 - Analysis: Decreased libido is more prevalent in the OCP group.
9. **Endometriosis:**
 - Control Group: 7 individuals
 - OCP Group: 21 individuals
 - Analysis: Endometriosis is more prevalent in the OCP group.
10. **Hair Loss:**
 - Control Group: 29 individuals
 - OCP Group: 34 individuals
11. Analysis: Both groups experience hair loss, with the control group experiencing it more frequently.
12. **Headaches:**
 - Control Group: 6 individuals
 - OCP Group: 39 individuals
 - Analysis: Headaches are more prevalent in the OCP group.
13. **Increased Vaginal Discharge:**
 - Control Group: 3 individuals
 - OCP Group: 15 individuals
 - Analysis: Increased vaginal discharge is more prevalent in the OCP group.
14. **Mood Alteration:**
 - Control Group: 13 individuals
 - OCP Group: 27 individuals
 - Analysis: Mood alteration is more prevalent in the OCP group.
15. **Nausea/Dizziness:**
 - Control Group: 5 individuals
 - OCP Group: 51 individuals
 - Analysis: Nausea/dizziness is significantly more prevalent in the OCP group.
16. **Spotting Between Periods:**
 - Control Group: 1 individual
 - OCP Group: 3 individuals
 - Analysis: Spotting between periods is found in each side, with the OCP group having a marginally greater prevalence.
17. **Uterine Cancer:**
 - Control Group: 1 individual
 - OCP Group: 0 individuals

- Analysis: Uterine cancer is observed only in the control group.
- 18. **Vaginal Dryness:**
 - Control Group: 4 individuals
 - OCP Group: 12 individuals
 - Analysis: Vaginal dryness is more prevalent in the OCP group.
- 19. **Weight Gain:**
 - Control Group: 18 individuals
 - OCP Group: 38 individuals
 - Analysis: Weight gain is more prevalent in the OCP group.

These observations provide a broad overview of the differences in health ailments between the two groups. The number of individuals who reported experiencing each side effect is much higher in the group that is taking OCPs than in the group that is not taking OCPs. This suggests that OCPs may cause these side effects.

DISCUSSION

The findings of this study provided valuable insights into the health implications of OCP use among women. The higher incidence of symptoms such as nausea, abdominal cramping, and mood alterations in the OCP group raised concerns about the potential side effects of long-term OCP use. While OCPs remain a popular and effective method of contraception, healthcare providers should be aware of these potential adverse effects and discuss them with patients during consultations.

The comparison with the control group underscored the significance of these findings, suggesting that OCPs might contribute to specific health issues that are less prevalent in women not using hormonal contraceptives. However, the absence of severe conditions such as cancer in this study's cohort indicated that OCPs may not carry the same level of risk as previously thought, although this conclusion should be approached with caution due to the study's limitations.

Further research, particularly longitudinal studies with larger sample sizes, is essential to fully understand the long-term health implications of OCP use. Such studies could help clarify the potential risks and benefits of OCPs, allowing women to make more informed choices regarding their contraceptive options.

Conclusion

This study provided important insights into the health effects associated with the use of oral contraceptive pills (OCPs) among women. The findings revealed that certain ailments, such as nausea, abdominal cramping, and mood alterations, were significantly more prevalent among OCP users compared to those who did not use hormonal contraceptives. Additionally, common side effects like weight gain and headaches were also more frequently reported in the OCP group, suggesting a correlation between OCP use and these health concerns.

The comparison with the control group further highlighted the distinct health profile of OCP users, emphasizing the need for careful monitoring and management of these potential side effects. Although severe conditions like breast and uterine cancer were not observed in this study, the results underscored the necessity of ongoing research to fully understand the long-term risks and benefits of OCP use.

In conclusion, while OCPs remain an effective and widely used method of contraception, healthcare providers should continue to inform and educate patients about the possible health implications associated with their use. This knowledge is crucial for women to make informed decisions regarding their contraceptive choices. Further research with larger, more diverse populations is needed to confirm these findings and to explore additional factors that may influence the health outcomes of OCP users.

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